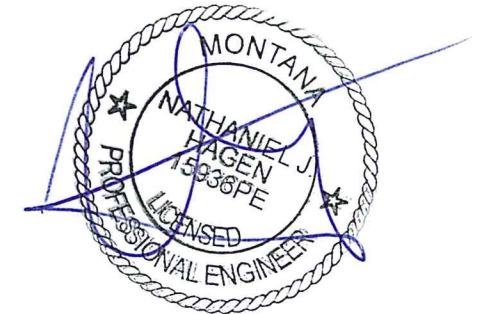


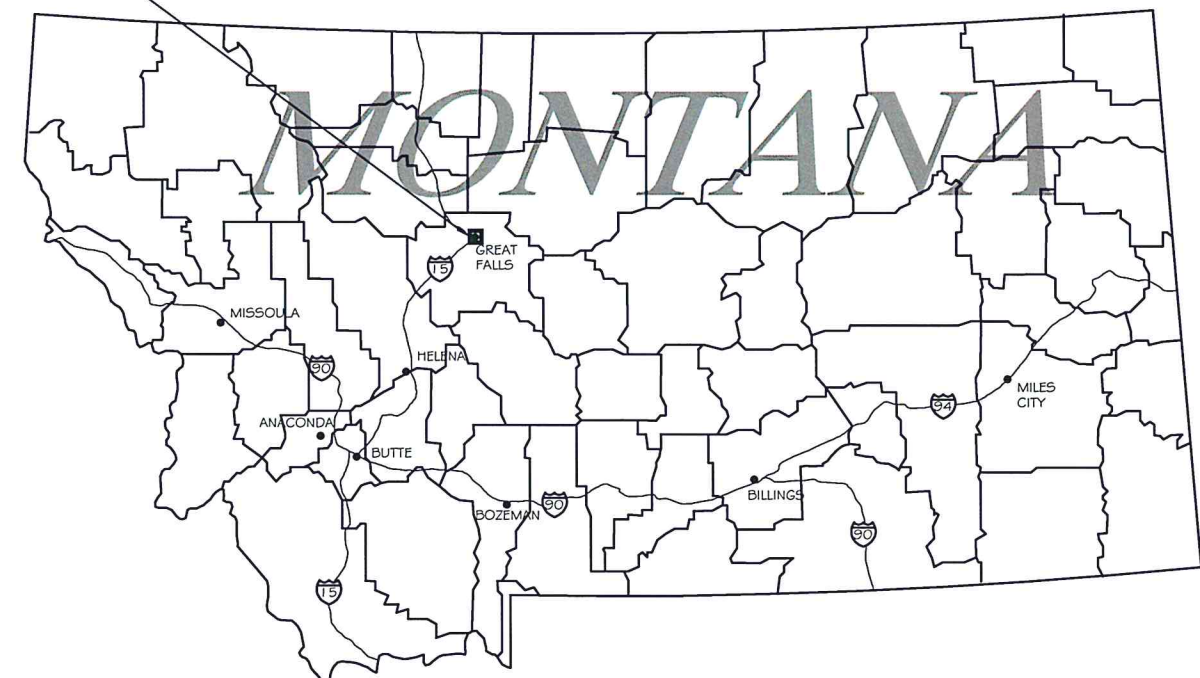


PIONEER
TECHNICAL SERVICES, INC.
201 E. BROADWAY, SUITE C
HELENA, MT 59601
(406) 457-8252



2-17-16

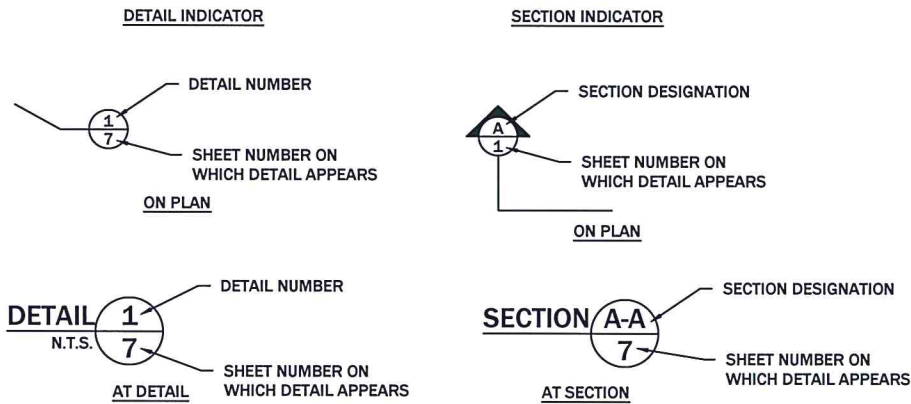
PROJECT LOCATION



188

LEGEND

	EXISTING INDEX CONTOURS		PROPOSED INDEX CONTOURS
	EXISTING INTERMEDIATE CONTOURS		PROPOSED INTERMEDIATE CONTOURS
	EXISTING ROADS		CENTERLINE
	EXISTING FENCE		SLOPE DESIGNATION
	EXISTING CULVERTS		REMOVE, SALVAGE, AND REPLACE FENCE
	EXISTING LANDSCAPE BOULDER		REMOVE, SALVAGE, AND REPLACE LANDSCAPE BOULDER
	EXISTING SIGNS		
	EXISTING GATE		



GENERAL NOTES

1. NOTIFY IN WRITING ALL UTILITY COMPANIES AND UTILITY OWNERS AND LOCATE ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK. THE WRITTEN NOTICE TO UTILITY OWNERS SHALL ALSO BE SUBMITTED TO OWNER. PROTECT AND REPAIR ANY DAMAGED UTILITIES AT NO ADDITIONAL EXPENSE TO OWNER. NOTIFY ONE-CALL UTILITY LOCATE AT (800) 424-5555 AT LEAST 48-HOURS PRIOR TO STARTING WORK THAT MAY IMPACT UTILITIES.

2. THE APPROXIMATE UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE BASED ON AERIAL PHOTOGRAMMETRY AND/OR RECORDS PROVIDED BY THE UTILITY OWNERS. ALL UTILITY LOCATIONS SHOWN ARE LIMITED TO THE ACCURACY OF THE LOCATION METHODS AND UTILITY OWNERS RECORDS. UTILITIES MAY HAVE BEEN RELOCATED SINCE THE DRAWINGS WERE PREPARED: UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ACTUAL DEPTHS AND/OR HEIGHTS MAY VARY. COMPLETE ALL OTHER INQUIRIES AND/OR INVESTIGATIONS NECESSARY TO FURTHER DEFINE THE UTILITY LOCATIONS AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL EXPENSE TO OWNER. NOTIFY ONE-CALL UTILITY LOCATE AT (800) 424-5555 AT LEAST 48-HOURS PRIOR TO STARTING WORK THAT MAY IMPACT UTILITIES.

3. CONTACT UTILITY COMPANIES 48 HOURS PRIOR TO TRENCHING WITHIN 15 FEET OF ALL OVERHEAD POLES TO PROVIDE THE UTILITY COMPANY THE OPPORTUNITY TO SECURE POLES.

4. NOTIFY ENGINEER OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION AND DO NOT BACKFILL UNTIL THE TYPE, SIZE, AND LOCATION HAVE BEEN RECORDED.

5. RESPECT ALL RIGHT-OF-WAY BOUNDARIES. PROTECT BUILDINGS, WALLS, MONUMENTS, TREES AND OTHER LANDSCAPING, UTILITY POLES, AND OTHER FEATURES INSIDE AND OUTSIDE ANY RIGHT-OF-WAYS. REPAIR OR REPLACE ALL SUCH DAMAGE AT NO ADDITIONAL EXPENSE TO OWNER.
6. CONTACT UTILITY OWNER TO COORDINATE INSTALLATION OF POLE WRAPS ON UTILITY POLES WHERE REQUIRED BY UTILITY OWNER.

7. SAFETY

A: GENERAL:
CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SITE SAFETY. ENSURE SAFE OPERATIONS AND THE SAFETY OF CONTRACTOR'S EMPLOYEES DURING THE WORK. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCING OF CONSTRUCTION OPERATIONS. UNDER NO CIRCUMSTANCES SHALL THE INFORMATION PROVIDED BE INTERPRETED TO MEAN THAT THE ENGINEER AND/OR OWNER ARE ASSUMING RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY OR CONTRACTOR'S ACTIVITIES. SUCH RESPONSIBILITY SHALL NEITHER BE IMPLIED NOR INFERRED.

B: EXCAVATION:
CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE TEMPORARY EXCAVATIONS AND SHALL SHORE, SLOPE, OR BENCH THE SIDES OF THE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF THE EXCAVATION SIDES AND BOTTOM. FOR ALL EXCAVATIONS COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS INCLUDING THE CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS PROVIDED AT 29 CFR PART 1926. IN NO CASE SHALL SLOPE HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH EXCEED THOSE SPECIFIED IN APPLICABLE REGULATIONS.

8. REPLACE OR RESET ALL EXISTING FEATURES REMOVED OR DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION, AND AS APPROVED BY ENGINEER, INCLUDING BUT NOT LIMITED TO, SIGNS, MAILBOXES, ENTRANCE STRUCTURES, DRAINAGE DITCHES, APPROACHES, DELINEATORS, GRAVEL SURFACES, CONCRETE STRUCTURES INCLUDING CURBS AND SIDEWALKS, ASPHALT PAVEMENT, AND FENCES. VERIFY THE EXTENT OF THIS WORK PRIOR TO BIDDING, INCLUDE THE COST OF THIS WORK IN THE BID PRICES FOR THE WORK, AND COMPLETE THIS WORK AT NO ADDITIONAL COST TO THE OWNER.
9. REMOVE FENCES TO FACILITATE CONSTRUCTION ONLY AFTER RECEIVING PERMISSION FROM ENGINEER. REINSTALL REMOVED FENCES TO A CONDITION THAT IS EQUAL TO OR BETTER THAN THE ORIGINAL.

10. CONTRACTOR RESPONSIBLE TO OBTAIN WATER AND ACQUIRE ALL REQUIRED PERMITS COMPLETE THE WORK.

11. RESET ALL DISTURBED SURVEY MONUMENTS OR MARKERS, INCLUDING BUT NOT LIMITED TO, PROPERTY CORNERS, SECTION CORNERS, HIGHWAY MONUMENTS, PROPERTY PINS, OR OTHER MDT HIGHWAY CONTROL. ALL SUCH SURVEY MONUMENTS SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MONTANA AT CONTRACTOR'S EXPENSE. THESE ITEMS ARE NOT NECESSARILY SHOWN ON THE DRAWINGS.

12. OBTAIN ALL PERMITS REQUIRED TO COMPLETE THE WORK.

13. MAINTAIN ALL EXISTING DRAINAGE PATTERNS UNLESS OTHERWISE SHOWN ON THE DRAWINGS. TEMPORARY CULVERTS MAY BE NEEDED IN SOME LOCATIONS TO COMPLETE THE WORK AND SHALL BE REMOVED WHEN THE WORK IS COMPLETE AT NO ADDITIONAL EXPENSE TO OWNER.

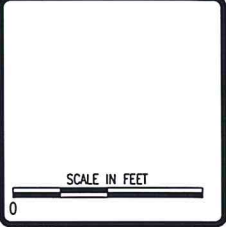
SHEET INDEX

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	LEGEND, SHEET INDEX, AND GENERAL NOTES
3	PROJECT OVERVIEW
4	EXISTING CONDITIONS
5	DEMOLITION PLAN
6	CONSTRUCTION AND GRADING PLAN VIEW
7	NORTH TRENCH DRAINS PLAN AND PROFILES
8	SOUTH TRENCH DRAIN PLAN AND PROFILE
9	TRENCH DETAILS ALTERNATIVE A
10	TRENCH DETAILS ALTERNATIVE B

REVISION:	DATE:	BY:	DESC:
----	----	----	----
----	----	----	----
----	----	----	----
----	----	----	----
----	----	----	----

DRAWN BY:	CR
DESIGNED BY:	NH
CHECKED BY:	TR
APPROVED BY:	NH
PROJECT NO:	----
DATE:	02-17-15

DISPLAYED AS:
COORD SYS/ZONE:
DATUM:
UNITS:
SOURCE:



AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

LEGEND, SHEET INDEX,
AND GENERAL NOTES



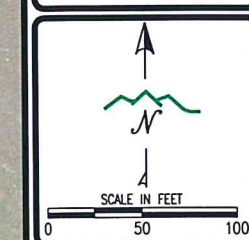
SHEET
2 OF 10



REVISION:		
DATE	BY	DESC

DRAWN BY:	CR
DESIGNED BY:	NH
CHECKED BY:	TR
APPROVED BY:	NH
PROJECT NO:	
DATE:	02-17-15

DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	FEET
SOURCE:	PIONEER

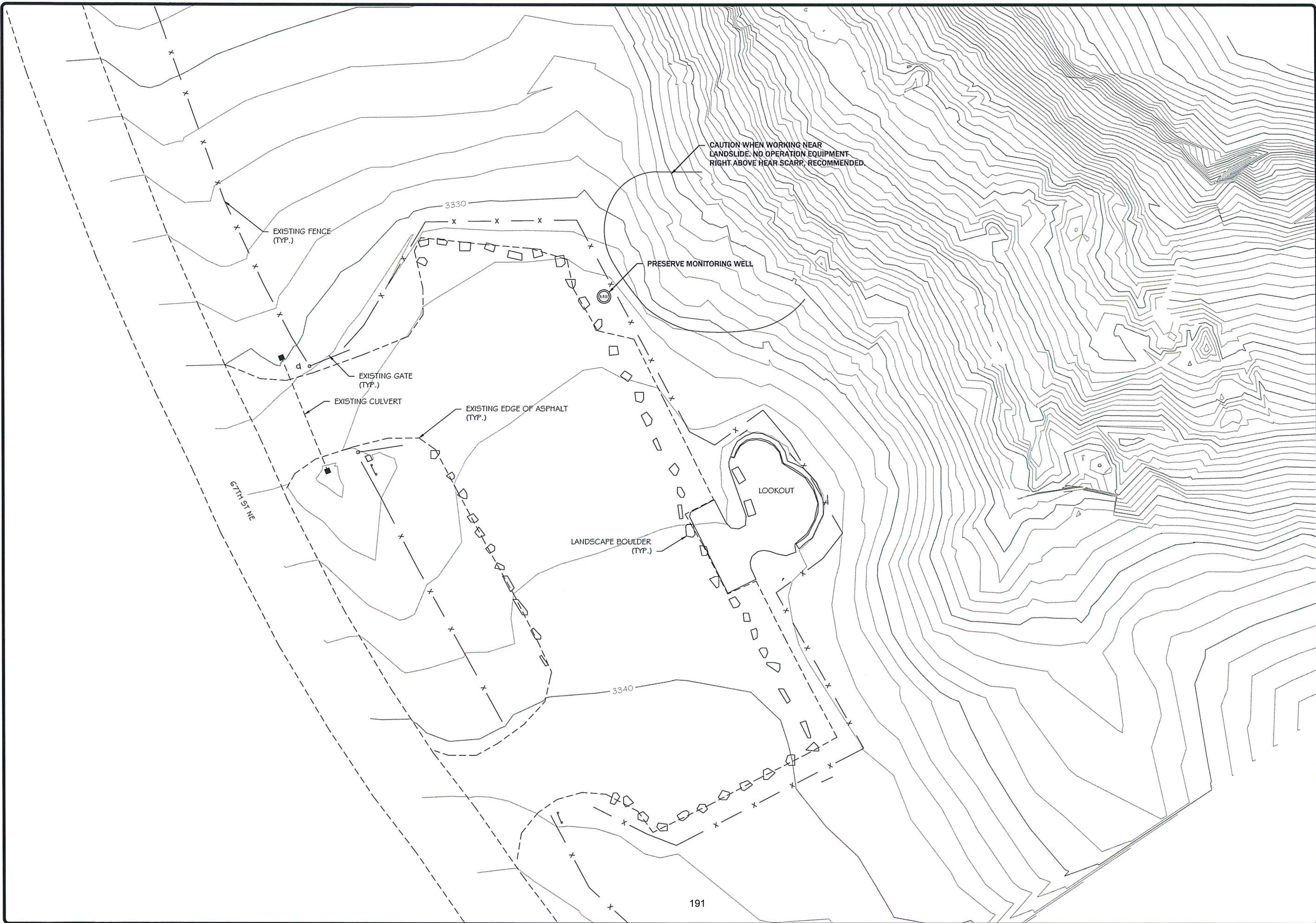


AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

PROJECT
OVERVIEW



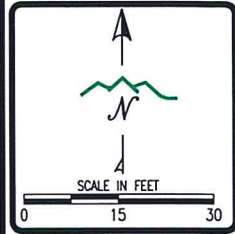
SHEET
3 OF 10



REVISION:		
DATE	BY	DESC

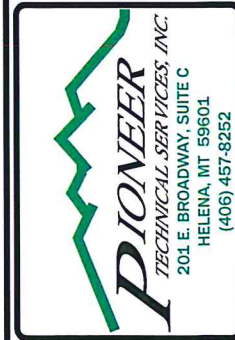
DRAWN BY: CR
DESIGNED BY: NH
CHECKED BY: TR
APPROVED BY: NH
PROJECT NO:
DATE: 02-17-15

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: FEET
SOURCE: PIONEER

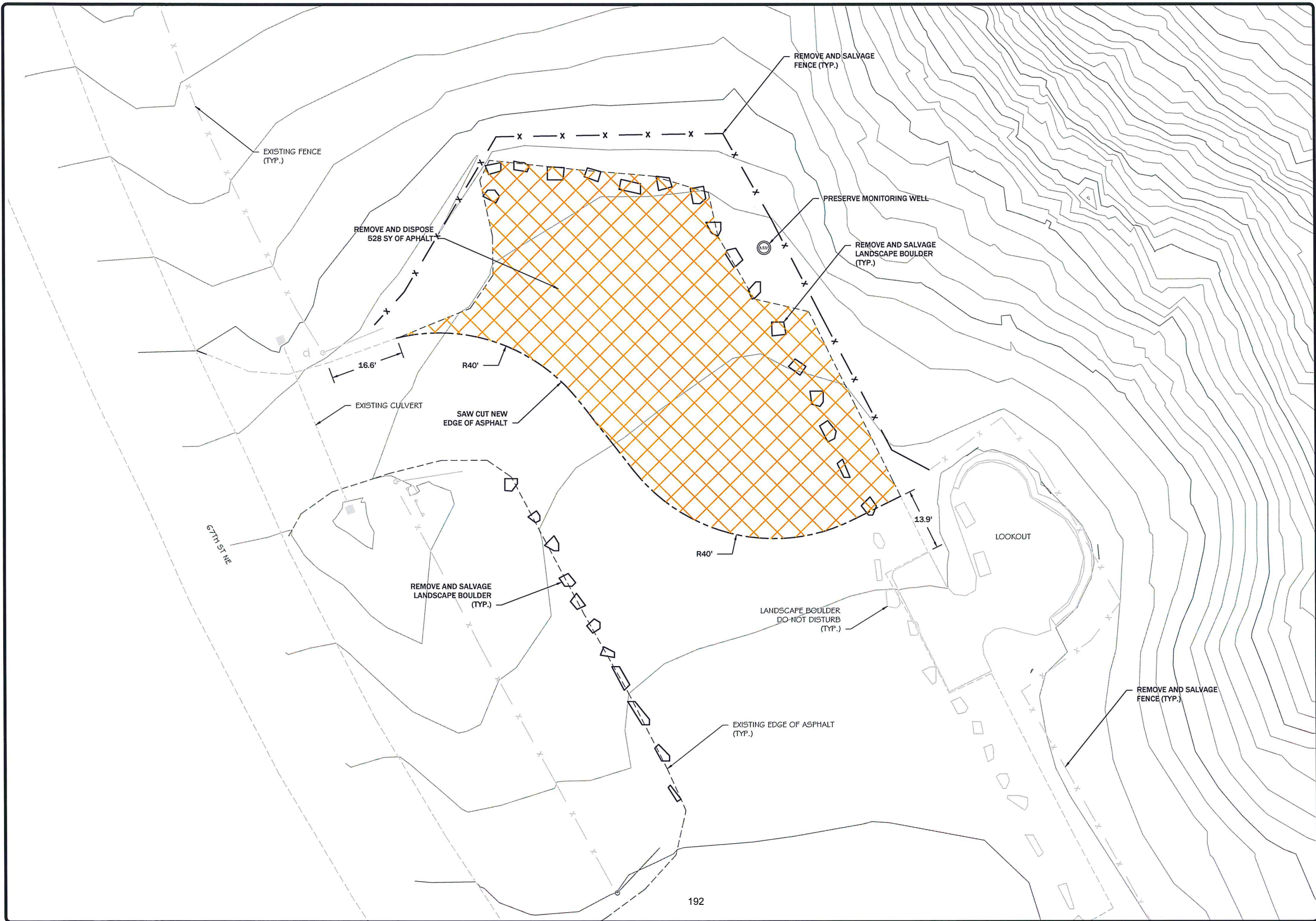


AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

EXISTING CONDITIONS



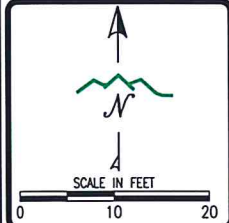
SHEET
4 OF 10



REVISION:	BY:	DESC:
DATE:		

DRAWN BY:	CR
DESIGNED BY:	NH
CHECKED BY:	TR
APPROVED BY:	NH
PROJECT NO:	
DATE:	02-17-15

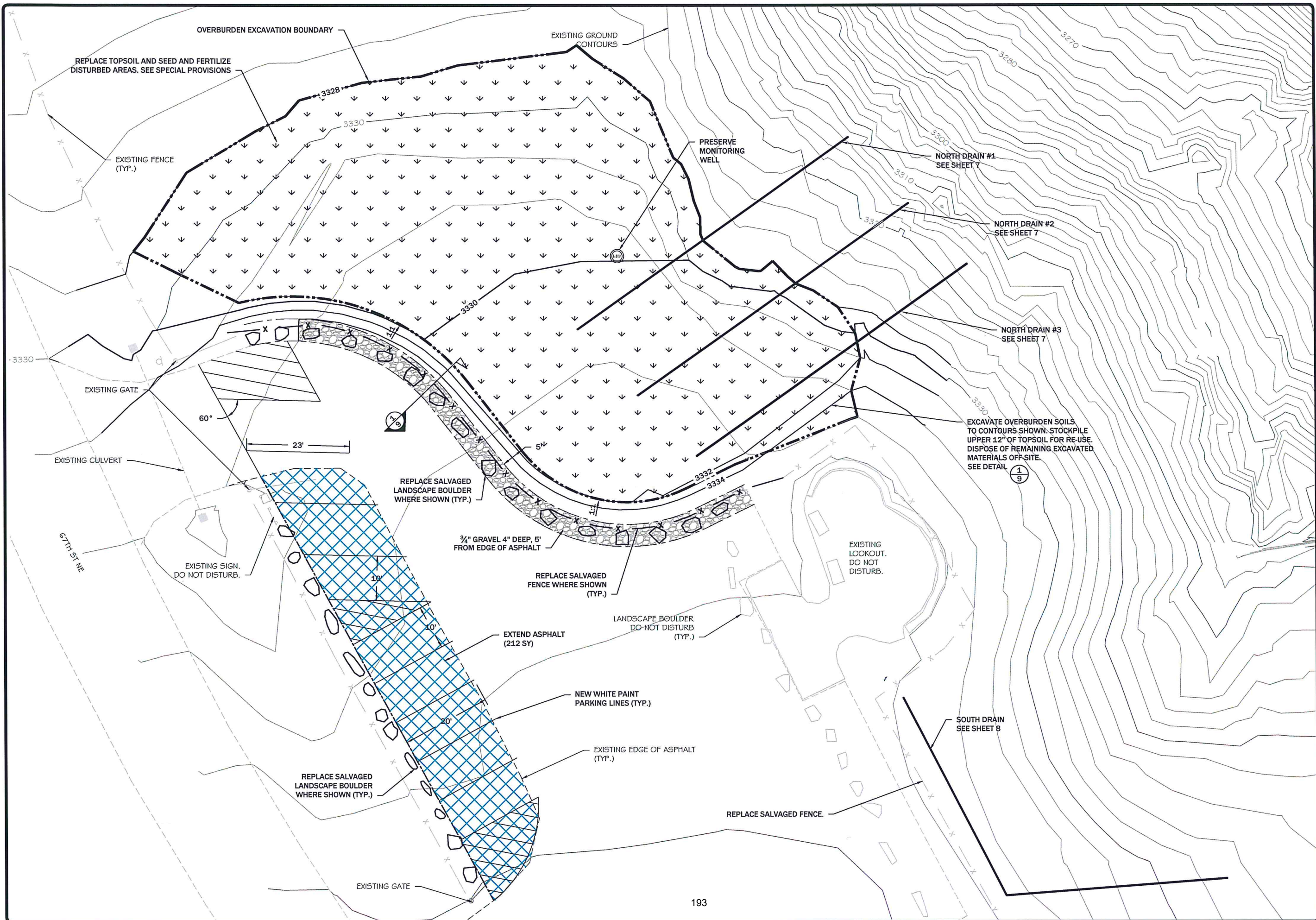
DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	FEET
SOURCE:	PIONEER



AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

DEMOLITION PLAN





REVISION:	DATE:	BY:	DESC:

DRAWN BY:	CR
DESIGNED BY:	NH
CHECKED BY:	TR
APPROVED BY:	NH
PROJECT NO:	
DATE:	02-17-15

DISPLAYED AS:	
COORD SYS/ZONE:	NAD 83
DATUM:	NAD 83
UNITS:	FEET
SOURCE:	PIONEER

SCALE IN FEET

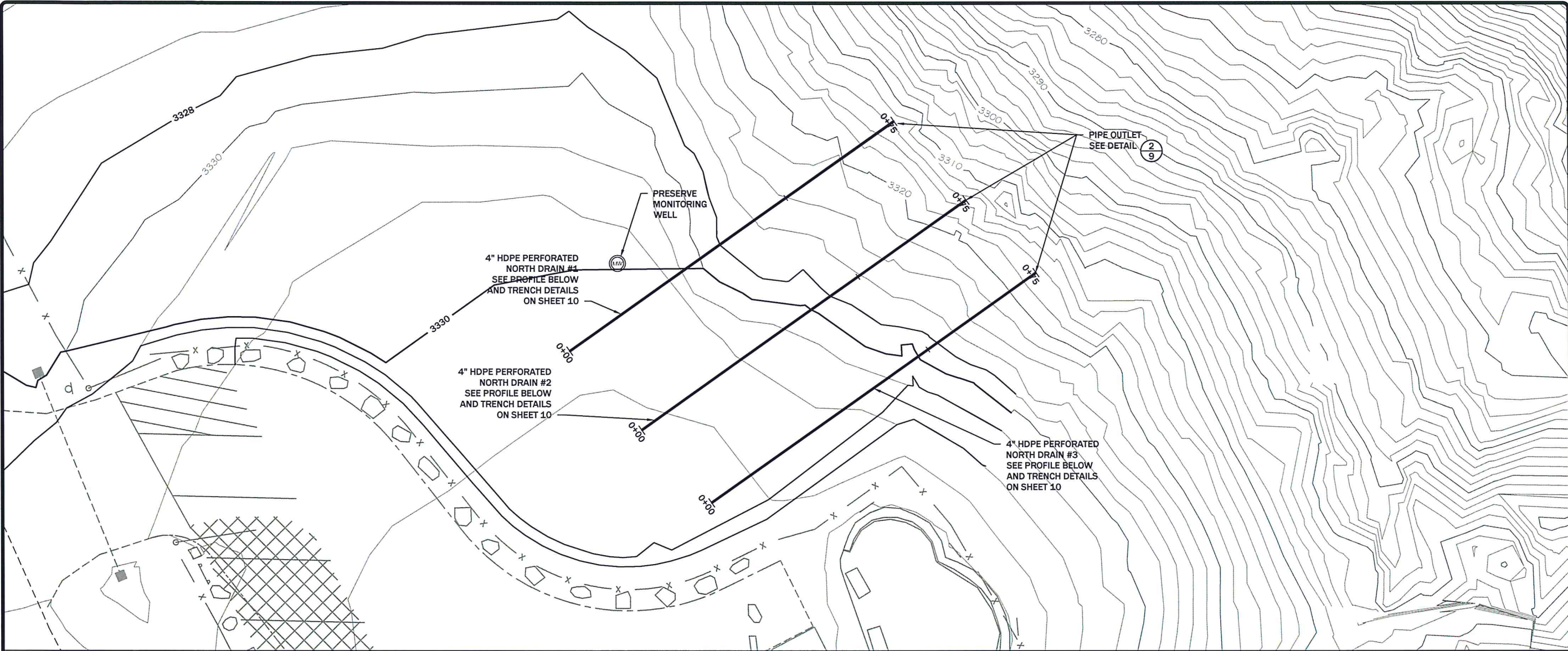
0 10 20

AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

CONSTRUCTION
AND GRADING
PLAN VIEW

PIONEER
TECHNICAL SERVICES, INC.
201 E. BROADWAY, SUITE C
HELENA, MT 59601
(406) 457-8252

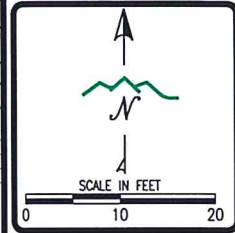
SHEET
6 OF 10



REVISION:	DATE:	BY:	DESC:

DRAWN BY:	CR
DESIGNED BY:	NH
CHECKED BY:	TR
APPROVED BY:	NH
PROJECT NO:	
DATE:	02-17-15

DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	FEET
SOURCE:	PIONEER

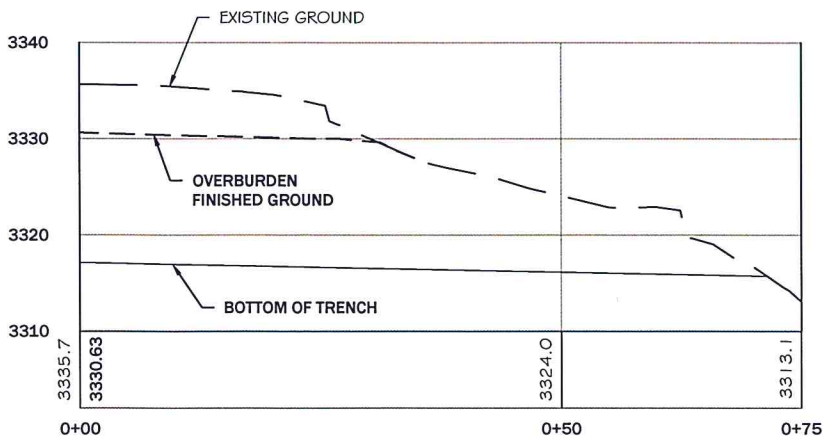


AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

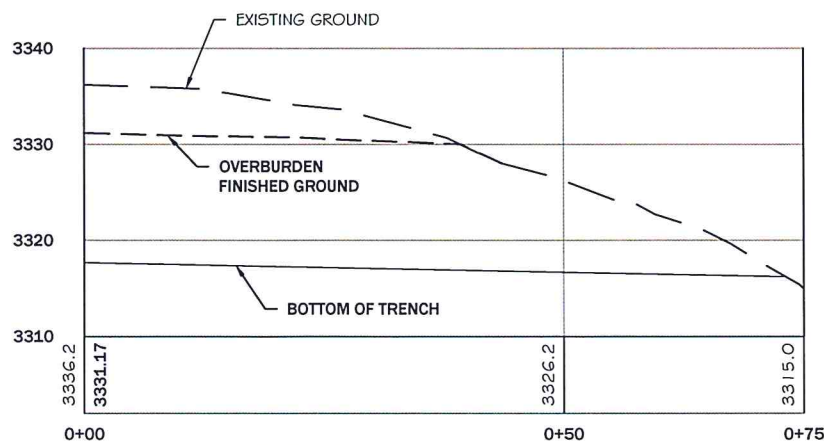
NORTH
TRENCH DRAINS
PLAN AND PROFILES



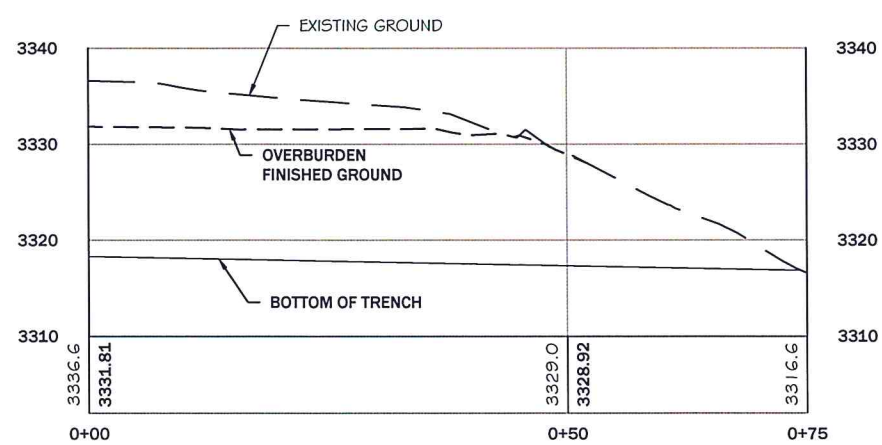
SHEET
7 OF 10



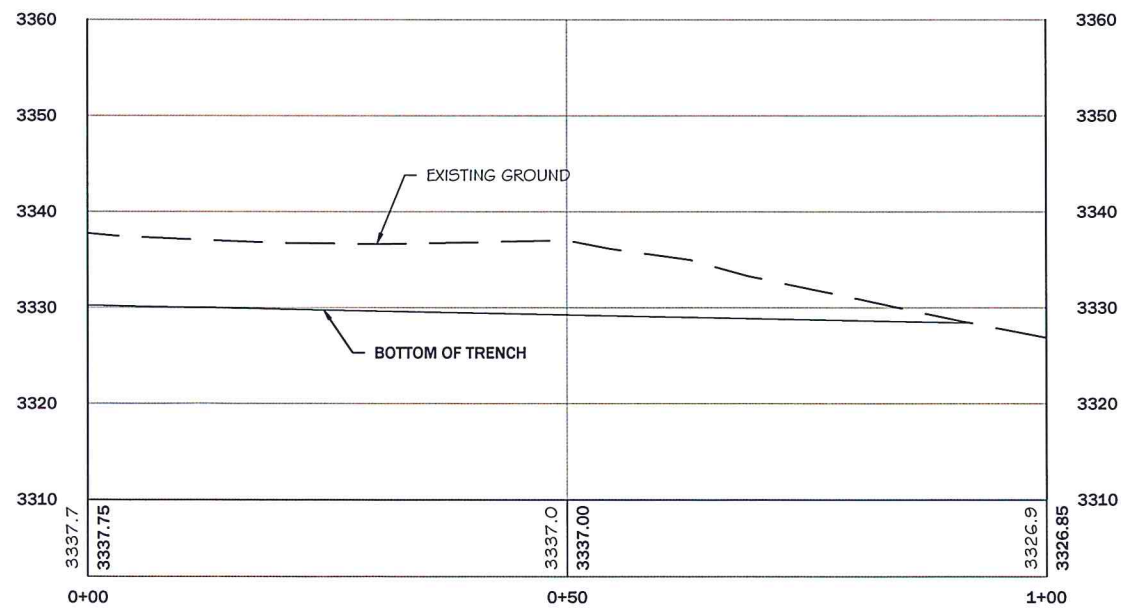
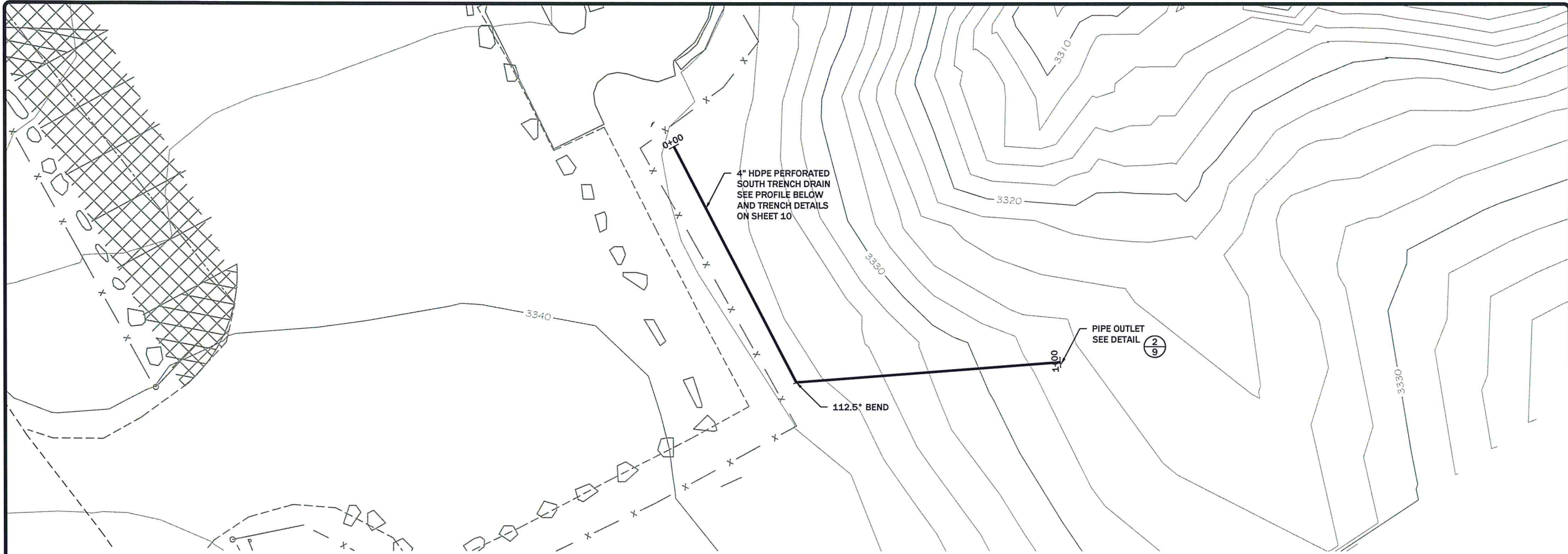
NORTH TRENCH DRAIN #1 PROFILE



NORTH TRENCH DRAIN #2 PROFILE



NORTH TRENCH DRAIN #3 PROFILE

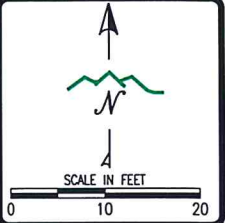


SOUTH DRAIN TRENCH

REVISION:	BY:	DESC:
DATE:		

DRAWN BY: CR
DESIGNED BY: NH
CHECKED BY: TR
APPROVED BY: NH
PROJECT NO: 00000000
DATE: 02-17-15

DISPLAYED AS:
COORD SYS/ZONE: ASP
DATUM: NAD 83
UNITS: FEET
SOURCE: PIONEER

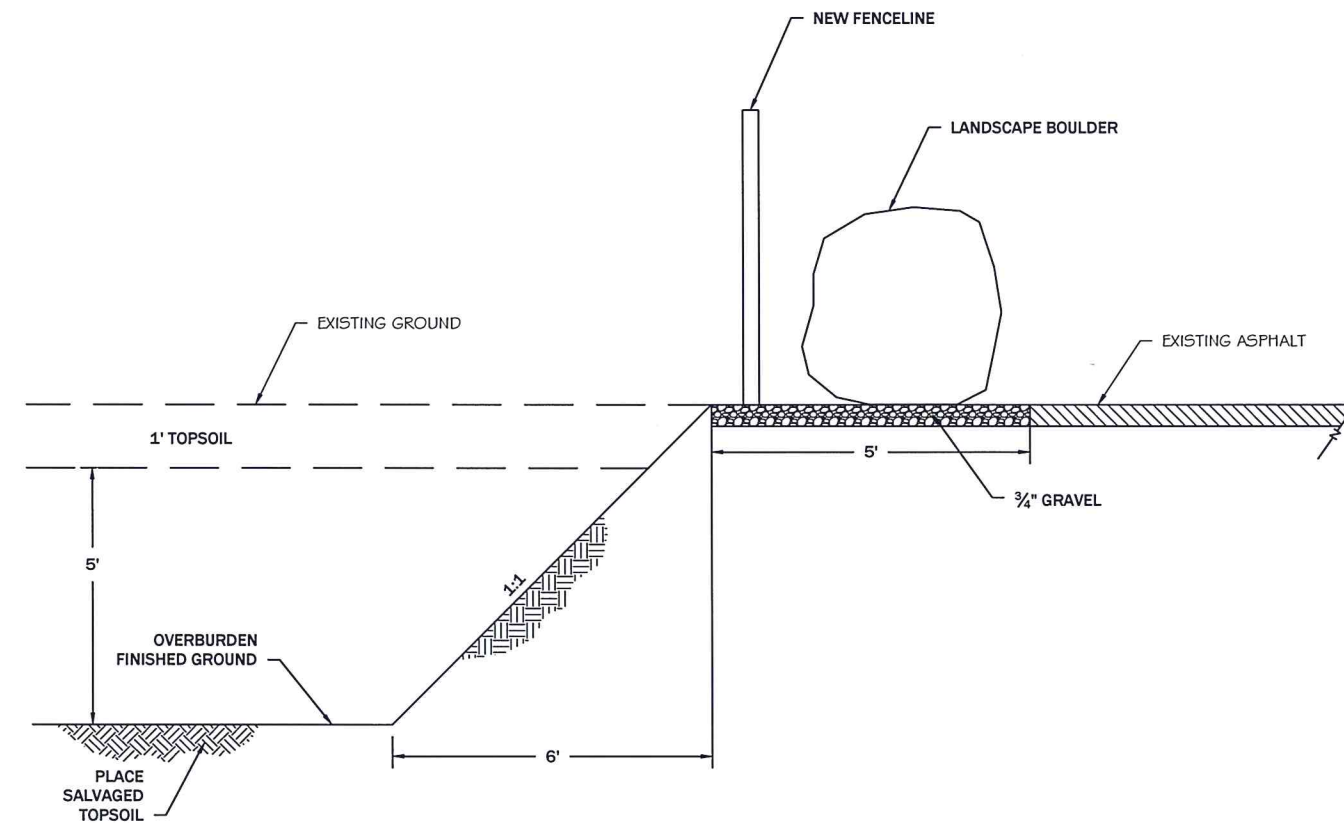


AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

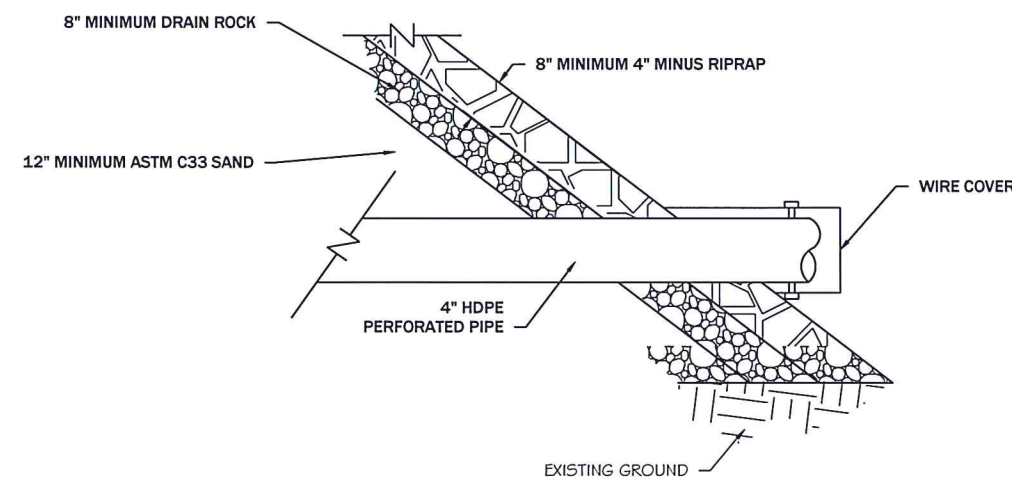
SOUTH
TRENCH DRAIN
PLAN AND PROFILE



SHEET
8 OF 10



OVERBURDEN EXCAVATION DETAIL 1
9
N.T.S.



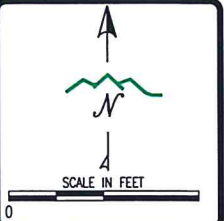
PIPE OUTLET DETAIL 2
9
N.T.S.

NOTE:
1. DRAIN ROCK SHOULD BE CRUSHED $\frac{3}{4}$ " MINUS WASHED ROCK MEETING GRADATION REQUIREMENTS OF ASTM C33 #67 COURSE AGGREGATES.

REVISION:	DATE:	BY:	DESC:

DRAWN BY: CR
DESIGNED BY: NH
CHECKED BY: TR
APPROVED BY: NH
PROJECT NO:
DATE: 02-17-15

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: FEET
SOURCE: PIONEER

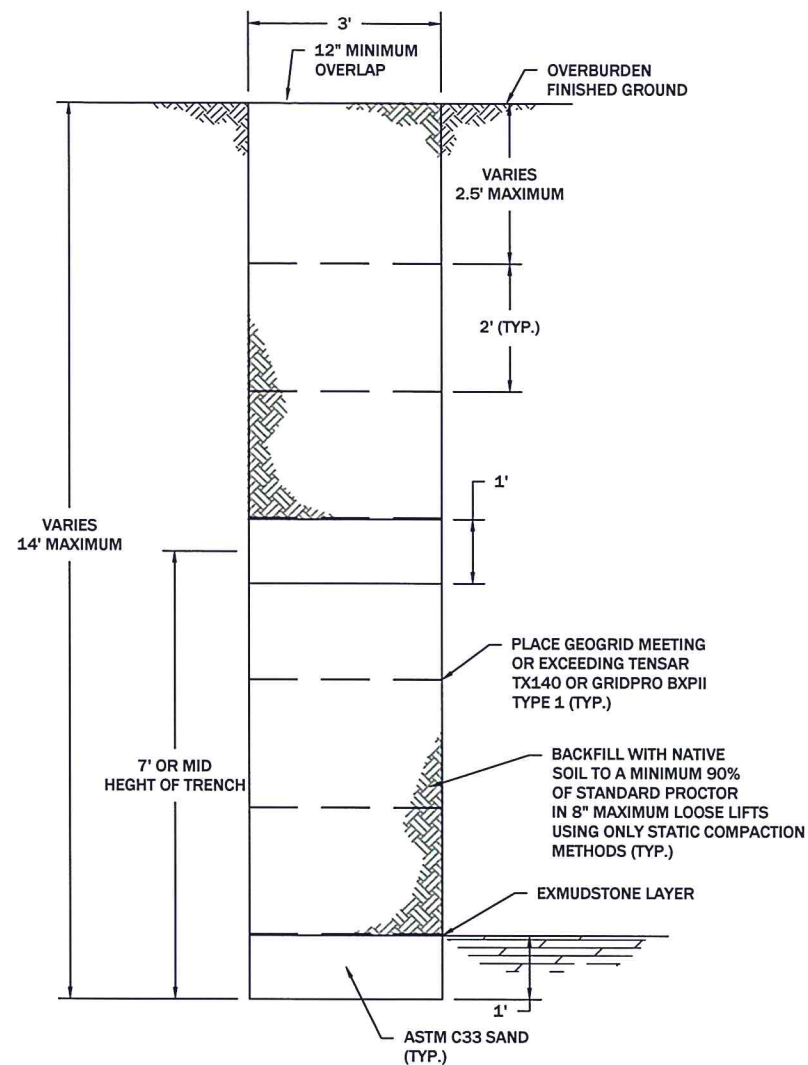


AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

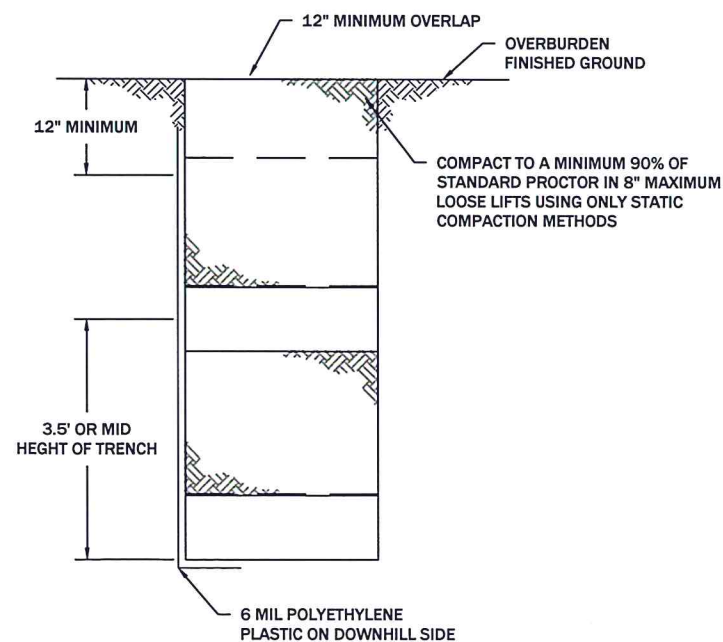
TRENCH DETAILS
ALTERNATIVE A



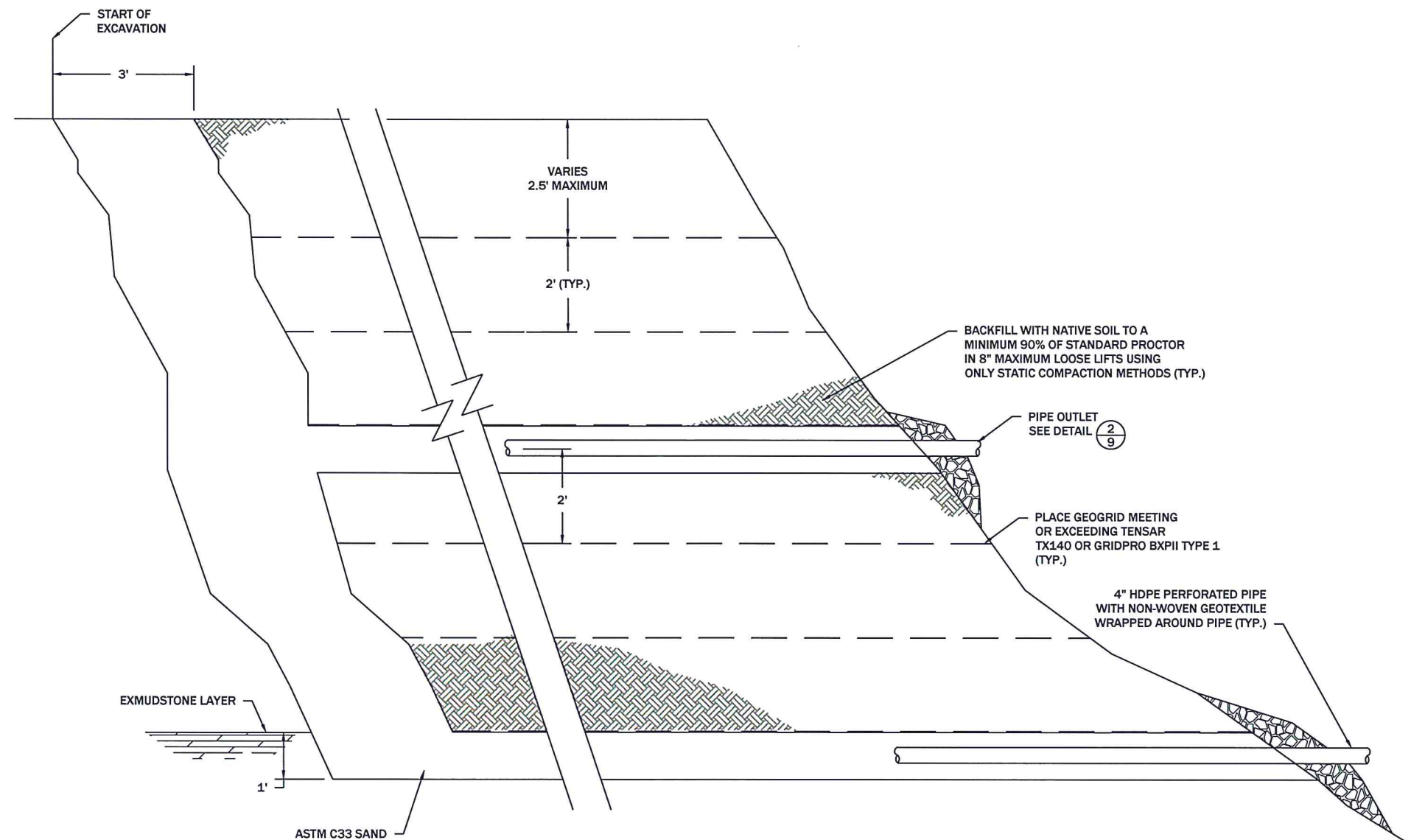
SHEET
9 OF 10



NORTH TRENCH DRAIN DETAIL 1
N.T.S. 10



SOUTH TRENCH DRAIN DETAIL 2
N.T.S. 10

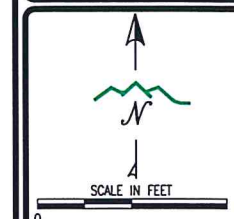


TRENCH DRAIN PROFILE 3
N.T.S. 10

REVISION:	DATE:	BY:	DESC:

DRAWN BY:	CR
DESIGNED BY:	NH
CHECKED BY:	TR
APPROVED BY:	NH
PROJECT NO:	
DATE:	02-17-15

DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	FEET
SOURCE:	PIONEER



AMERICAN PUBLIC
LAND EXCHANGE
RAINBOW DAM OVERLOOK
PARKING LOT AND IMPROVEMENTS

TRENCH DETAIL
ALTERNATIVE B



SHEET
10 OF 10